

REMARKS

The Official Action rejected Claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,415,138 to Sirola et al. in view of U.S. Patent No. 6,373,942 to Braund and U.S. Patent No. 5,584,054 to Tyneski et al. In addition, Claims 9-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Sirola '138 patent in view of U.S. Patent No. 6,463,263 to Feilner et al. As described below, independent Claims 1, 9 and 12 have been amended to further patentably distinguish the claimed invention from the cited references, taken either individually or in combination. In light of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration of the present application and allowance of the amended set of claims. As a result of the amendment of Claim 12, Claim 13 has been canceled.

Independent Claim 1 is Patentable

Independent Claim 1 defines a flexible cover for a mobile station that has a mobile station chassis that, in turn, includes a lens portion and at least one button portion. The flexible cover of Claim 1 is defined to include a front surface having a translucent portion that may be mounted over at least one button portion, at least one strap capable of engaging the mobile station chassis and at least one rim that may be stretched to hold the lens portion.

As shown in Figure 1 of the present application, for example, the flexible elastomeric cover 107, in conjunction with the back cover 109, provides protection to the front cover 105, the mobile station chassis 101 and the battery 103. The front cover includes a button portion 202 that is also protected by the flexible cover. A display 102 is provided by the mobile station chassis 101 and the front cover 105 includes a lens 201 that is superimposed over the display when the front cover is mated to the mobile station chassis. Figure 2b shows how a lens may be elevated from the surrounding surface of the front cover, such that a rim (i.e., perimeter grip 321, see Figure 3) of the flexible cover may fit about the lens. Figures 1 and 3 also illustrate the at least one strap of the flexible cover. For example, as recited on page 5, lines 15-18, with reference to Figure 3, a first strap 351 and a second strap 352 may encircle the front cover. As

such, the flexible cover may be slid around a front cover, mobile station chassis, and back cover assembly to hold the back cover in place against the combined chassis and front cover, thus holding the assembly together in a manner similar to the use of a rubber band. See page 5, lines 25-28. Thus, when the flexible cover is slid around a front cover, mobile station chassis, and back cover assembly, the flexible cover securely seals the assembly, including the button portion of the front cover, against outside elements that could otherwise reach the mobile station chassis and/or battery.

As noted above, independent Claim 1, as well as Claims 2-8 which depend therefrom, have been rejected as being obvious over the Sirola '138 patent in view of the Braund '942 patent and the Tyneski '054 patent. The Sirola '138 patent discloses a wireless communication device that includes a housing and a touch sensitive display coupled to the housing. The display includes activation areas that activate the functions of the wireless communication device. In addition, a cover part is coupled to the housing and arranged to move in relation to the display such that when the cover part is in the closed position, the activation means of the cover part is arranged to transmit the pressing of the activation means to the corresponding portion of the activation area of the display. See Col. 1, lines 7-18. Advantageously, the activation means of the cover part is made of a completely transparent and flexible foil-like material. Thus, the cover part protects the entire touch sensitive display and makes it possible to read the display without opening the cover. See Col. 3, lines 18-40. The thickness of the activation means can vary such that bossages or pimples can be formed on the surface of the activation means that faces the display to make contact between the activation means and the display. See Col. 5, lines 12-16. Thus, by pressing, such as with a finger, on the foil-like activation means, toward the display, the activation means bends elastically and moves perpendicularly toward the display. See Col. 5, lines 57-64. Furthermore, the cover part is rotatable in relation to the housing by means of a hinge, such that the cover part can be rotated away from the display and the display can be touched directly without the contact of the activation means. See Col. 6, lines 17-22.

The Braund '942 patent describes a hands-free communication device adapted to be clipped to the ear of a user. The Braund device generally includes a printed circuit board and a speaker and a microphone mounted thereon. The Braund device may also include a support

member upon which the printed circuit board is mounted and a cover or other protective member for overlying the printed circuit board. Each of the printed circuit board, the support member and the cover(s) are flexible and define a slot to permit the device to be worn on the ear of a user. In addition, as noted by Col. 6, lines 52-53 and Col. 12, lines 36-37, the printed circuit board, the support member and one or more covers may be bonded to one another to reduce part count and to simplify the manufacturing process.

The Tyneski '054 patent discloses a portable communication device (i.e., handset) that provides two-way voice communication along with a personal organizer. The handset includes a housing, and a front cover (i.e., flap) coupled to the housing through a hinge. See Col. 1, lines 38-47. The flap has keys to provide the functions associated with cordless telephones and a display window for displaying scrolled menus and information generated when the keys are pressed. See Col. 1, lines 47-63. The flap therefore completely covers the underlying display or lens of the handset. See Figures 1 and 2. The hinge includes a sensor switch that detects movement of the flap between the open position and closed position. Thus, the hinge sensor sends appropriate signals to a controller that allows the handset to operate as a telephone when the flap is in the closed position and as a personal organizer when the flap is in the open position. See Col. 1, line 64 to Col. 2, line 7. The inside of the flap has pressure surfaces that are aligned with a corresponding activation area of the underlying handset when the flap is in the closed position. As such, when a key is actuated from the front of the closed flap, pressure is applied to the corresponding portion of the activation area. See Col. 2, lines 28-41.

In contrast to independent Claim 1, none of the cited references, taken either individually or in combination, disclose a flexible cover that includes a front surface with a translucent portion that can be mounted over the button portion of a mobile station, at least one strap capable of engaging the mobile station chassis, and at least one rim that may be stretched to hold a lens portion of the cover. While the Sirola '138 patent discloses a wireless communication device that includes a transparent cover coupled to the housing and arranged to move in relation to the display such that when the cover is in the closed position, the activation means of the cover is arranged to transmit the pressing of the cover to the corresponding portion of the activation area of the underlying device display (Col. 1, lines 7-18), the Sirola '138 patent does not disclose any

type of strap or any type of rim that may be stretched to hold a lens portion as recognized by the Official Action and as recited by independent Claim 1. In this regard, the cover part of the Sirola '138 patent is rotatable in relation to the housing by means of a hinge (Col. 6, lines 17-22), which is a different arrangement than a cover that attaches to the device and, in particular, the mobile station chassis via a strap as recited by amended independent Claim 1. In fact, the cover of the Sirola '138 patent would not work with a strap that encircles the device because then the cover would not be rotatable in relation to the housing of the device in order to access the display of the underlying device, which is stated as an advantageous feature of the cover described in the Sirola '138 patent (Col. 6, lines 17-22). Furthermore, the cover of the Sirola '138 patent covers the entire touch sensitive display of the underlying device (Col. 3, lines 18-40), such that there is no rim that may be stretched to hold a lens portion as recited by independent Claim 1.

The Braund '942 patent also fails to teach or suggest a flexible cover as recited by independent Claim 1. While the printed circuit board, support member and cover(s) are flexible, the Braund '942 patent fails to teach or suggest any type of strap capable of engaging a mobile station chassis as now recited by amended independent Claim 1. Instead, the printed circuit board, support member and cover(s) are bonded to one another without reliance upon any type of strap. Moreover, since the Braund '942 patent does not describe a mobile station having a lens portion, the Braund '942 patent also fails to teach or suggest any type of rim capable of being stretched to hold the lens portion as also recited by independent Claim 1.

The Tyneski '054 patent also discloses a front cover (i.e., flap) coupled to the housing of a handset through a hinge. See Col. 1, lines 38-47. The hinge includes a sensor switch that detects movement of the flap between the open position and closed position such that the hinge sensor sends appropriate signals to a controller that allows the handset to operate as a telephone when the flap is in the closed position and as a personal organizer when the flap is in the open position. See Col. 1, line 64 to Col. 2, line 7. Therefore, the Tyneski '054 patent also does not disclose any type of strap for engaging the mobile station chassis or any type of rim that may be stretched to hold a lens portion as recited by amended independent Claim 1. Because the flap of the Tyneski '054 patent is coupled to the housing through a hinge (Col. 6, lines 17-22), the Tyneski '054 patent discloses a different arrangement than a cover that attaches to the mobile

station chassis via a strap as recited by independent Claim 1. Furthermore, the flap of the Tyneski '054 patent also covers the entire display or lens of the underlying handset, such that there is no rim that may be stretched to hold a lens portion as recited by independent Claim 1.

Since none of the cited references teach or suggest a flexible cover that includes at least one strap for engaging the mobile station chassis, and at least one rim that may be stretched to hold a lens portion of the mobile station chassis, any combination of the references would also fail to teach or suggest a flexible cover that includes at least one strap for engaging the mobile station chassis, and at least one rim that may be stretched to hold a lens portion, as recited by amended independent Claim 1.

Independent Claims 9 and 12 are Patentable

Amended independent Claim 9 is directed to a semi-rigid cover that includes a transparent lens supported over the display of a mobile station, at least one lever arm supporting at least one key-top over at least one key-dome switch of the mobile station in a cantilevered manner, and at least one fastening means. Thus, as shown in Figure 2a and as described on page 4, lines 20-32, of the specification, the front cover 200 includes a button portion 202 connected to the lens 201. The button portion of the front cover includes lever arms 203, 205, and 207 that may provide a support for key-tops 213, 215 and 217, which are positioned above key-domes 223, 225, and 227 on a mobile station or circuit board. As depicted in Figures 1 and 2a and as now recited by amended independent Claim 9, the lever arms support the key-tops above respective key-domes in a cantilevered manner, thereby facilitating the deflection of the key-tops toward respective key-domes in response to user actuation.

Furthermore, the button configuration for a mobile station of amended independent Claim 12 includes a key-dome switch, a key-top supported over the key-dome switch in a cantilevered manner by a lever arm, and a substantially flat elastomeric sheet extending over the key-top. As described above, the elastomeric sheet securely seals the mobile station, including the button portion of the mobile station. As such, the elastomeric sheet extends over the key-tops 213, 215 and 217 of the front cover, which are positioned above key-domes 223, 225, and 227 on a mobile station or circuit board. Moreover, independent Claim 12 has been amended in a similar fashion

to independent Claim 9 so as now to recite that the key-top is supported over the respective key-done switch in a cantilevered manner by a lever arm, thereby facilitating flexibility and deflectability of the key-top.

Independent Claims 9 and 12 are rejected as being obvious over the Sirola '138 patent in view of the Feilner '263 patent. With respect to the Sirola '138 patent that was described above, it is noted that the display is touch sensitive and that the cover that may overlies the display is sufficiently pliable to permit deflection of a portion of the cover in response to user input in order to effectively touch the display.

The Feilner '263 patent describes a communication station, such as a mobile telephone, that is divided into a core unit, which includes all electrical parts, a shell unit enclosing the core unit, and a power supply unit. The shell unit can therefore have many different designs and can easily be mounted around the core unit since no connection of electrical parts is necessary. The core unit also includes a keypad unit made of multiple switches. The switches are formed by at least two spiral-shaped adjacent conductors on an electronic circuit board and bumps provided on a dome foil of the keypad unit to short-circuit the spiral shaped conductors at different positions. See Col. 4, lines 19-44. A soft keypad, preferably made of rubber, is inserted between the front housing and the core unit at a position matching the keypad unit. The soft keypad includes some buttons that extend through holes provided in the front housing. See Col. 4, lines 53-58 and Col. 11, lines 7-12. Thus, a user may depress a button on the soft keypad which, in turn, flattens a respective bump of the dome foil in order to electrically short the corresponding spiral shaped conductors. The shell unit includes a front housing and a back housing, which can be screwed together to sandwich the core unit between the front and back housings. It is also possible to snap the core unit into the back housing, then to snap the front housing into the back housing with suitable clamps, clips, latches or catches. See Col. 6, line 62 to Col. 7, line 3.

In contrast to amended independent Claim 9, none of the cited references, taken either individually or in combination, teach or suggest a semi-rigid cover that includes at least one lever arm supporting at least one key-top over at least one key-dome switch of the mobile station in a cantilevered manner. While each of the Sirola '138 and Feilner '263 patents disclose devices having covers that include displays or lenses and activation areas, neither of the references

discloses any type of lever arm that supports a key-top in a cantilevered manner as recited by amended independent Claim 9. In particular, the Sirola '138 patent merely describes a touch-sensitive screen and a corresponding flexible cover for activating the touch-sensitive screen. As recognized by the Official Action, the Sirola '138 patent makes no mention of key-tops, let alone lever arms to support key-tops in a cantilevered manner. See Col. 2, line 28. In addition, while the Feilner '263 patent discloses a communication station with a keypad unit made of multiple switches that are formed by at least two spiral-shaped adjacent conductors on an electronic circuit board that are overlaid by bumps provided by a dome foil of the keypad unit and a soft keypad inserted between the front housing and the core unit, the Feilner '263 patent also does not disclose any type of support for the key-tops, let alone a lever arm for support of the key-tops in a cantilevered manner, as recited by amended independent Claim 9. Instead, the buttons of the soft keypad overlie a respective bump of the dome foil and, in turn, a respective pair of spiral-shaped conductors such that none of the components of a key includes a lever arm and, more particularly, a lever arm for supporting a key-top in a cantilevered manner. Therefore, neither of the cited references teach or suggest the semi-rigid cover of amended independent Claim 9.

Since neither of the cited references teach or suggest a semi-rigid cover that includes at least one lever arm supporting at least one key-top over at least one key-dome switch of the mobile station in a cantilevered manner, any combination of the references would also fail to teach or suggest the semi-rigid cover that includes at least one lever arm supporting at least one key-top over at least one key-dome switch of the mobile station in a cantilevered manner, as recited by amended independent Claim 9.

Regarding independent Claim 12, the cited references, taken either individually or in combination, also fail to teach or suggest a button configuration for a mobile station that includes a key-dome switch, a key-top supported over the key-dome switch in a cantilevered manner by a lever arm, and a substantially flat elastomeric sheet extending over the key-top. Again, the Sirola '138 patent does not describe key-tops associated with a cover of a mobile station because the Sirola device incorporates a touch-sensitive screen. In particular, the Sirola '138 patent makes no mention of key-tops, buttons, or key dome switches, let alone an elastomeric sheet extending over the key-tops. The Sirola '138 patent only discloses that the thickness of the

activation means of the cover part can vary such that bossages or pimples can be formed on the surface of the activation means that faces the display of the underlying device to make contact between the activation means and the display. See Col. 5, lines 12-16. Thus, by pressing, such as with a finger, on the foil-like activation means, toward the display, the activation means bends elastically and moves perpendicularly toward the display. See Col. 5, lines 57-64. The activation means of the cover part and the activation area of the display of the underlying device are therefore very different from the button configuration that includes a key-dome switch, a key-top supported over the key-dome switch in a cantilevered manner and a substantially flat elastomeric sheet extending over the key-top as recited by amended independent Claim 12.

As noted above in conjunction with independent Claim 9, the Feilner '263 patent also fails to teach or suggest the button configuration of amended independent Claim 12. In particular, the Feilner '263 patent does not teach or suggest a key-top supported over the key-dome switch in a cantilevered manner by a lever arm as now recited by amended independent Claim 12. Instead, the Feilner '263 patent describes a dome foil having respective bumps overlying respective pairs of spiral conductors, and a soft keypad with buttons overlying respective ones of the bumps; none of which have a lever arm that supports a key-dome switch in a cantilevered manner. Moreover, the Feilner '263 patent fails to teach or suggest a substantially flat elastomeric sheet overlying the key-top, as also recited by amended independent Claim 12. In this regard, to the extent that the soft keypad may be considered the elastomeric sheet, it is noted that the soft keypad is not substantially flat as recited by independent Claim 12. As the soft keypad is specifically designed to include buttons that extend upwardly through respective openings defined by the front housing, Applicants submit that the Feilner '263 patent actually teaches away from a substantially flat elastomeric sheet by requiring an elastomeric sheet with a number of upstanding keys. Thus, neither of the cited references teach or suggest the button configuration of amended independent Claim 12.

Since neither of the cited references teaches or suggests a button configuration for a mobile station that includes a key-dome switch, a key-top supported over the key-dome switch in a cantilevered manner by a lever arm, and a substantially flat elastomeric sheet extending over the key-top, any combination of the references would also fail to teach or suggest the button

configuration for a mobile station that includes a key-dome switch, a key-top supported over the key-dome switch in a cantilevered manner by a lever arm, and a substantially flat elastomeric sheet extending over the key-top, as recited by amended independent Claim 12.


Since the independent claims are patentably distinct from the cited references, taken either individually or in combination, the claims that depend therefrom are also patentably distinct from the cited references for at least the same reasons since the dependent claims include each of the elements of a respective independent claim. Consequently, Applicants submit that, for at least those reasons set forth above, the rejections of the claims under 35 U.S.C. § 103(a) are therefore overcome.

CONCLUSION

In view of the amended claims and the remarks presented above, it is respectfully submitted that the claims are in condition for immediate allowance. Applicants respectfully request reconsideration of the present application and issuance of a Notice of Allowance. In the event that any additional issues arise, however, Applicants request that the Examiner contact Applicants' undersigned attorney to expedite the examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

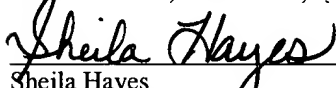


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CLT01/4635569v1